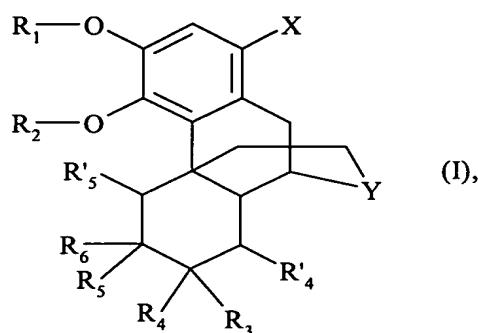




## LISTING OF CLAIMS

Claims 1-30 (canceled)

31. (previously presented) A compound selected from those of formula (I) :



5 wherein

- $R_1$  represents alkyl,
- $R_2$  represents hydrogen, alkylcarbonyl, haloalkylcarbonyl or arylcarbonyl,

- Y represents  $\text{>NR}_7$ ,  $\text{>N}^+\text{O}^-\text{R}_7$  or  $\text{>N}^+\text{R}_7\text{R}'_7$   $Z^-$

wherein  $R_7$  and  $R'_7$ , which may be identical or different, each represent alkyl and  $Z^-$  represents a halogen anion,

- $R_3$  represents hydroxy or alkoxy,
- $R_4$  and  $R'_4$  each represent hydrogen or together form an additional bond, or  $R_3$  and  $R_4$  together form oxo when X is fluorine, chlorine or iodine, or  $=\text{N-OR}_8$  (wherein  $R_8$  represents hydrogen or alkyl),
- $R_6$  represents hydroxy, alkylcarbonyloxy (wherein the alkyl moiety may be substituted by hydroxy, alkoxy, carboxy or alkyloxycarbonyl) or alkoxy,
- $R_5$  and  $R'_5$  each represent hydrogen or together form an additional bond, or  $R_5$  and  $R_6$  together form oxo,  $=\text{N-OR}_9$  or  $=\text{N-NR}_{10}\text{R}_{11}$  (wherein  $R_9$ ,  $R_{10}$ , and  $R_{11}$ , which may be the same or different, each represent hydrogen or alkyl),

- and X represents halogen,

it being understood that:

the compound of formula (I) may not represent 1-bromo-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-one,

- 5 the term "alkyl" denotes an alkyl group having 1 to 6 carbon atoms which may be linear or branched, and  
the term "alkoxy" denotes an alkyloxy group having 1 to 6 carbon atoms which may be linear or branched,

10 its enantiomers and diastereoisomers, and addition salts thereof with a pharmaceutically-acceptable acid or base.

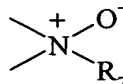
32. (previously presented) A compound of Claim 31, wherein R<sub>1</sub> represents methyl.

33. (previously presented) A compound of Claim 31, wherein R<sub>2</sub> represents hydrogen.

34. (previously presented) A compound of Claim 31, wherein R<sub>2</sub> represents alkylcarbonyl.

15 35. (previously presented) A compound of Claim 31, wherein R<sub>2</sub> represents ethylcarbonyl.

36. (previously presented) A compound of Claim 31, wherein Y represents NR<sub>7</sub>.

37. (previously presented) A compound of Claim 31, wherein Y represents 

20 38. (previously presented) A compound of Claim 31, wherein X represents chlorine.

39. (previously presented) A compound of Claim 31, wherein X represents bromine.

40. (previously presented) A compound of Claim 31, wherein R<sub>3</sub> represents alkoxy.

41. (previously presented) A compound of Claim 31, wherein R<sub>5</sub> represents hydrogen.

42. (previously presented) A compound of Claim 31, wherein R<sub>6</sub> represents OH.

43. (previously presented) A compound of Claim 31, wherein R<sub>6</sub> represents  
5 alkylcarbonyloxy.

44. (previously presented) A compound of Claim 31, wherein R<sub>5</sub> and R<sub>6</sub> together form  
oxo.

45. (previously presented) A compound of Claim 31, wherein R<sub>5</sub> and R<sub>6</sub> together form  
 $\text{=N—OH}$

46. (previously presented) A compound of Claim 31, which is selected from (9 $\alpha$ ,13 $\alpha$ )-1-  
10 chloro-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-4,6-diol and addition salts  
thereof with a pharmaceutically-acceptable acid or base.

47. (previously presented) A compound of Claim 31, which is selected from (9 $\alpha$ ,13 $\alpha$ )-1-  
chloro-3,7-dimethoxy-17-methyl-4-(propionyloxy)-7,8-didehydromorphinan-6-yl  
propionate and addition salts thereof with a pharmaceutically-acceptable acid or base.

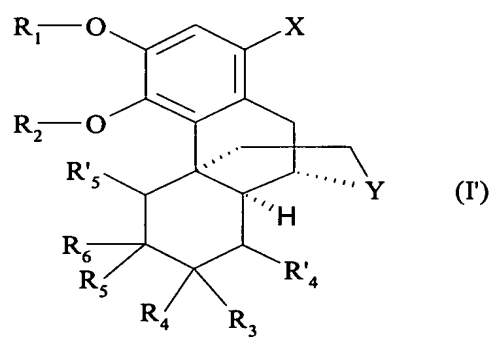
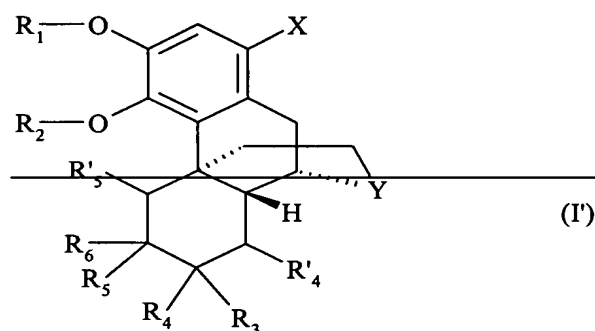
48. (previously presented) A compound of Claim 31, which is selected from (9 $\alpha$ ,13 $\alpha$ )-1-  
15 bromo-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-4,6-diol and addition salts  
thereof with a pharmaceutically-acceptable acid or base.

49. (previously presented) A compound of Claim 31, which is selected from (9 $\alpha$ ,13 $\alpha$ )-1-  
bromo-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-one oxime  
20 and addition salts thereof with a pharmaceutically-acceptable acid or base.

50. (previously presented) A compound of Claim 31, which is selected from (9 $\alpha$ ,13 $\alpha$ )-1-bromo-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-one N-oxide and addition salts thereof with a pharmaceutically-acceptable acid or base.

51. (previously presented) A compound of Claim 31, which is selected from (9 $\alpha$ ,13 $\alpha$ )-1-chloro-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-one N-oxide and addition salts thereof with a pharmaceutically-acceptable acid or base.

52. (currently amended) A compound of Claim 31, having the configuration shown by formula (I') :

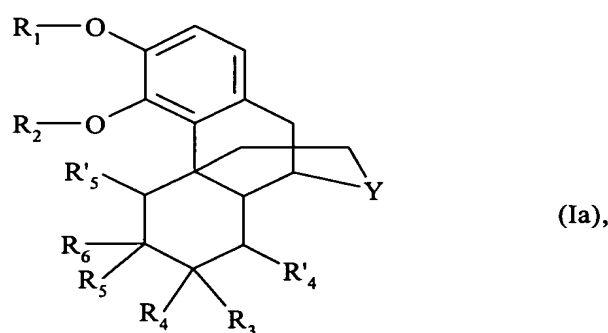


and addition salts thereof with a pharmaceutically-acceptable acid or base.

53. (previously presented) A method for treating a living animal body afflicted with a condition selected from amnesia and deficiencies of memory, comprising the step of administering to the living animal body an amount of a compound of Claim 31 which is effective for treatment of the condition.

54. (previously presented) A pharmaceutical composition, comprising as active principal an effective amount of a compound of Claim 31 together with one or more pharmaceutically-acceptable excipients or vehicles.

55. (previously presented) A method for treating a living animal body afflicted with a condition selected from amnesia and deficiencies of memory associated, comprising the step of administering to the living animal body an amount of a compound selected from those of formula (Ia):



wherein

- $R_1$  represents alkyl,
- $R_2$  represents hydrogen, alkylcarbonyl, haloalkylcarbonyl or arylcarbonyl,

- Y represents  $\text{>NR}_7$ ,  $\text{>N}^+\text{O}^-\text{R}_7$  or  $\text{>N}^+\text{R}_7\text{R}'_7$   $Z^-$

wherein  $R_7$  and  $R'_7$ , which may be identical or different, each represent alkyl and  $Z^-$  represents a halogen anion,

- $R_3$  represents hydroxy or alkoxy,
- $R_4$  and  $R'_4$  each represent hydrogen or together form an additional bond, or  $R_3$  and  $R_4$  together form oxo or  $=\text{N-OR}_8$  (wherein  $R_8$  represents hydrogen or alkyl),
- $R_6$  represents hydroxy, alkylcarbonyloxy (wherein the alkyl moiety may be substituted by hydroxy, alkoxy, carboxy or alkyloxycarbonyl) or alkoxy,

- $R_5$  and  $R'_5$  each represent hydrogen or together form an additional bond,  
or  $R_5$  and  $R_6$  together form oxo,  $=N-OR_9$  or  $=N-NR_{10}R_{11}$  (wherein  $R_9$ ,  $R_{10}$ , and  $R_{11}$ ,  
which may be the same or different, each represent hydrogen or alkyl),

it being understood that:

5        the term "alkyl" denotes an alkyl group having 1 to 6 carbon atoms which may be  
linear or branched and  
the term "alkoxy" denotes an alkyloxy group having 1 to 6 carbon atoms which may be  
linear or branched,

10       its enantiomers and diastereoisomers, and addition salts thereof with a pharmaceutically-  
acceptable acid or base,

which is effective for treatment of the condition.

**56.** (previously presented) The method of Claim 55, wherein the compound of formula  
(Ia) is sinomenine.

15       **57.** (canceled)

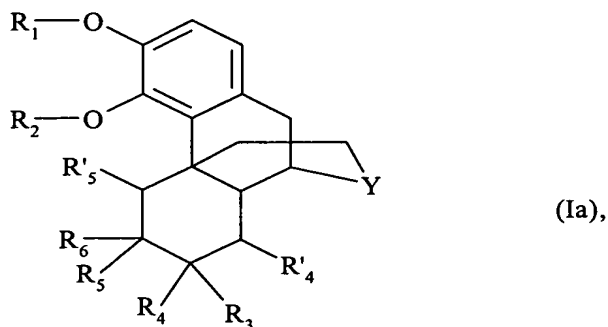
**58.** (canceled)

**59.** (previously presented) The method of Claim 55, wherein the compound of formula  
(Ia) is selected from:

20       (9 $\alpha$ ,13 $\alpha$ )-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-one  
hydrazone;  
(7 $\alpha$ ,9 $\alpha$ ,13 $\alpha$ )-4-hydroxy-3,7-dimethoxy-17-methylmorphinan-6-one;  
(7 $\beta$ ,9 $\alpha$ ,13 $\alpha$ )-4-hydroxy-3,7-dimethoxy-17-methylmorphinan-6-one;  
(9 $\alpha$ ,13 $\alpha$ )-3,7-dimethoxy-17-methyl-6-oxo-7,8-didehydromorphinan-4-yl    propionate;  
25       (9 $\alpha$ ,13 $\alpha$ )-3,4,7-trimethoxy-17-methyl-7,8-didehydromorphinan-6-one;  
(9 $\alpha$ ,13 $\alpha$ )-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-one oxime;

(9 $\alpha$ ,13 $\alpha$ )-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-4,6-diol;  
 (9 $\alpha$ ,13 $\alpha$ )-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-one N-oxide;  
 (9 $\alpha$ ,13 $\alpha$ )-6-amino-3,7-dimethoxy-17-methylmorphinan-4-ol;  
 4-[(9 $\alpha$ ,13 $\alpha$ )-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-yl]-oxy}-4-oxobutanoic acid;  
 (9 $\alpha$ ,13 $\alpha$ )-3,7-dimethoxy-17-methyl-4-(propionyloxy)-7,8-didehydromorphinan-6-yl propionate;  
 (9 $\alpha$ ,13 $\alpha$ )-17-benzyl-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-17-ium-6-one bromide;  
 (9 $\alpha$ ,13 $\alpha$ )-17-ethyl-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-17-ium-4,6-diol bromide;  
 (9 $\alpha$ ,13 $\alpha$ )-17-ethyl-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-17-ium-6-one bromide;  
 (9 $\alpha$ ,13 $\alpha$ )-4-(benzoyloxy)-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-yl benzoate;  
 (9 $\alpha$ ,13 $\alpha$ )-4-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-6-yl benzoate;  
 and  
 (9 $\alpha$ ,13 $\alpha$ )-6-hydroxy-3,7-dimethoxy-17-methyl-7,8-didehydromorphinan-4-yl benzoate.

60. (previously presented) A pharmaceutical composition comprising as active principle an effective amount of a compound selected from those of formula (Ia):



wherein

- R<sub>1</sub> represents alkyl,

- R<sub>2</sub> represents hydrogen, alkylcarbonyl, haloalkylcarbonyl or arylcarbonyl,

- Y represents  $\text{>NR}_7$ ,  $\text{>N}^+\text{O}^-\text{R}_7$  or  $\text{>N}^+\text{R}_7\text{R}'_7$  Z<sup>-</sup>

wherein R<sub>7</sub> and R'<sub>7</sub>, which may be identical or different, each represent alkyl and Z<sup>-</sup> represents a halogen anion,

- 5
- R<sub>3</sub> represents hydroxy or alkoxy,
  - R<sub>4</sub> and R'<sub>4</sub> each represent hydrogen or together form an additional bond, or R<sub>3</sub> and R<sub>4</sub> together form oxo or =N-OR<sub>8</sub> (wherein R<sub>8</sub> represents hydrogen or alkyl),
  - R<sub>6</sub> represents hydroxy, alkylcarbonyloxy (wherein the alkyl moiety may be substituted by hydroxy, alkoxy, carboxy or alkyloxycarbonyl) or alkoxy,
- 10
- R<sub>5</sub> and R'<sub>5</sub> each represent hydrogen or together form an additional bond, or R<sub>5</sub> and R<sub>6</sub> together form oxo, =N-OR<sub>9</sub> or =N-NR<sub>10</sub>R<sub>11</sub> (wherein R<sub>9</sub>, R<sub>10</sub>, and R<sub>11</sub>, which may be the same or different, each represent hydrogen or alkyl),

it being understood that:

- 15
- the term "alkyl" denotes an alkyl group having 1 to 6 carbon atoms which may be linear or branched and
- the term "alkoxy" denotes an alkyloxy group having 1 to 6 carbon atoms which may be linear or branched,

its enantiomers and diastereoisomers, and addition salts thereof with a pharmaceutically-acceptable acid or base,

20

together with one or more pharmaceutically-acceptable excipients or vehicles.

- 25
61. (previously presented) The method of Claim 53, wherein the living animal body is a human.



**62.** (previously presented) The method of Claim 55, wherein the living animal body is a human.